AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A compound of the structure formula !

$$R^1$$
 R^2
 R^3

or a pharmaceutically acceptable salt or prodrug thereof,

wherein R¹, R², R³, R⁴ and R⁵ are each independently selected from the groupconsisting of hydrogen, halogen, alkyl, haloalkyl, alkoxy, cyano, nitro, cycloalkyl, carboxaldehyde, [[;]]

with the proviso that at least one of R1-or R3-is

and a group of formula II defined as

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and wherein at least one of R¹ or R³ is a pyridine;

wherein D, B, Y and Z at each occurrence are <u>each</u> independently selected from the group consisting of -CR⁶=, -CR⁷R⁸-, -C(O)-, -O-, -SO₂-, -S-, -N=, and -NR⁹-:

n is an integer of zero to three;

R⁶, R⁷, R⁸ and R⁹, at each occurrence, are each independently selected from the group consisting of hydrogen, alkyl, carboxy, hydroxyalkyl, alkylaminocarbonyl alkyl, dialkylaminocarbonylalkyl and carboxyalkyl; and R¹⁰ and R¹¹ are each independently selected from the group consisting of hydrogen, alkyl, cycloalkyl, alkoxyalkyl, alkoxycarbonylalkyl, carboxyalkyl, hydroxyalkyl, heterocyclyl, heterocyclylalkyl and heterocyclylamino; or wherein R¹⁰ and R¹¹ are taken together with N may be joined to form a three to seven membered <u>unsubstituted</u> heterocyclyl or a three to seven membered substituted heterocyclyl ring, said ring being optionally substituted with one or more at least one substituent substituents R¹³. wherein R¹³, at each occurrence is independently selected from the groupconsisting of alkyl, alkylene, alkoxy, alkoxyalkyl, cycloalkyl, aryl, heterocyclyl, heterocyclylalkyl, heterocyclylcarbonyl, heterocyclylalkylaminocarbonyl, hydroxy, hydroxyalkyl, hydroxyalkoxyalkyl, carboxy, carboxyalkyl, carboxycarbonyl, carboxaldehyde, alkoxycarbonyl, arylalkoxycarbonyl, aminoalkyl, aminoalkanoyl, aminocarbonyl, carboxamido, alkoxycarbonylalkyl, carboxamidoalkyl, cyano, tetrazolyl, alkanoyl, hydroxyalkanoyl, alkanoyloxy, alkanoylamino, alkanoyloxyalkyl, alkanoylaminoalkyl, sulfonate, alkylsulfonyl, alkylsulfonylaminocarbonyl, arylsulfonylaminocarbonyl and heterocyclylsulfonylaminocarbonyl; wherein A is an unsubstituted aryl or group, an unsubstituted heterocyclyl

group, a substituted aryl, or a heterocyclyl group substituted with

said anyl or heterocyclyl group having-at least one substituent R¹², wherein R¹², at each occurrence, is independently selected from the group-consisting of hydrogen, halogen, alkyl, aryl, haloalkyl, hydroxy, alkoxy, alkoxyalkyl, alkoxycarbonyl, alkoxyalkoxy, hydroxyalkyl, aminoalkyl, aminocarbonyl, alkyl(alkoxycarbonylalkyl) aminoalkyl, heterocyclyl, heterocyclylalkyl, carboxaldehyde, carboxaldehyde hydrazone, carboxamido, alkoxycarbonylalkyl, carboxy, carboxyalkyl, carboxyalkoxy, hydroxyalkylaminocarbonyl, cyano, amino, heterocyclylalkylamino, carboxythioalkoxy, carboxycycloalkoxy, thioalkoxy, carboxyalkylamino, trans-cinnamyl and heterocyclylalkylaminocarbonyl; and

wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹² and R¹³ are unsubstituted or substituted with at least one electron donating or electron withdrawing group;

or a pharmaceutically-acceptable salt, optical isomer or prodrug therof.

wherein the heterocyclyl is selected from 3-, 4-, 5-, 6- and 7-membered

rings containing 1-3 heteroatoms independently selected from

nitrogen, oxygen and sulfur; the 4- and 5-membered rings have zero

to two double bonds and the 6- and 7-membered rings have zero to

three double bonds, the heterocyclyl being optionally substituted

with alkyl, halogen, hydroxy or alkyl substituents,

further wherein the heterocyclyl optionally comprises a group chosen from:

- (i) bicyclic, tricyclic, and tetracyclic groups in which any of the above

 heterocyclic rings is fused to one or two rings independently

 selected from an aryl ring, a cyclohexane ring, a cyclohexane

 ring, a cyclopentane ring, a cyclopentene ring, and another

 monocyclic heterocyclic ring;
- (ii) bridged bicyclic groups where a monocyclic heterocyclic group is

 bridged by alkylene group optionally selected from

$$\frac{H}{A}$$
, $\frac{1}{A}$, $\frac{1}{A}$; and

y*

each independently selected from -CH₂-, -CH₂NH-, -CH₂O-, -NH
and -O-, with the proviso that at least one of X* and Z* is not -CH₂-,

and Y* is selected from -C(O)- and -(C(R")₂)_v -, where R"

2. (Currently Amended) <u>A The</u> compound <u>according to</u> of claim 1 wherein R³ is <u>the</u> group of formula II

is hydrogen or alkyl of one to four carbons, and v is 1-3.

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wherein R^{10} , R^{11} , D, B, Y, and Z, and n are defined as in claim 1; and R^{1} is defined as in claim 1 with the proviso that if R^{3} does not define a pyridine, then R^{1} is a pyridine. at each occurrence are independently selected from the group consisting of $-CR^{6}$ =, $-CR^{7}R^{8}$ -, -C(O)-, -O-, $-SO_{2}$ -, $-SO_{2}$ -, $-SO_{2}$ -, $-SO_{2}$ -, and $-NR^{9}$ -;

n is an integer of zero to three;

R⁶, R⁷, R⁸ and R⁹, at each occurrence, are each independently selected from the group consisting of hydrogen, alkyl, carboxy, hydroxyalkyl, alkylaminocarbonyl alkyl, dialkylaminocarbonylalkyl and carboxyalkyl;

R¹⁰-and R¹¹-are each independently selected from the group consisting of hydrogen, alkyl, cycloalkyl, alkoxyalkyl, alkoxyarbonylalkyl, carboxyalkyl, hydroxyalkyl, heterocyclyl, heterocyclylalkyl and heterocyclylamino;

wherein R¹⁰-and R¹¹-may be joined to form a three to seven membered-heterocyclyl ring, said ring being optionally substituted with one or more-substituents R¹³, wherein R¹³-at each occurrence is independently-selected from the group consisting of alkyl, alkylene, alkoxy, alkoxyalkyl, cycloalkyl, aryl, heterocyclyl, heterocyclylalkyl, heterocyclylarbonyl, heterocyclylalkylaminocarbonyl, hydroxy, hydroxyalkyl, hydroxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, aminoalkyl, aminoalkyl, aminocarbonyl, arylalkoxycarbonyl, aminoalkyl, carboxamido, alkoxycarbonylalkyl, carboxamidoalkyl, cyano, tetrazolyl, alkanoyl, hydroxyalkanoyl, alkanoyloxy, alkanoylamino, alkanoyloxyalkyl, alkanoylaminoalkyl, alkanoylamino

sulfonate, alkylsulfonyl, alkylsulfonylaminocarbonyl, arylsulfonylaminocarbonyl and heterocyclylsulfonylaminocarbonyl; R¹ and R² are each independently selected from the group consisting of hydrogen, halogen, haloalkyl, and nitro; and

R⁴-and R⁵-are each independently selected from the group of hydrogen and alkyl.

3. (Currently amended) <u>A The</u> compound <u>according to</u> of claim 1 of the structure formula III

$$(R^{12})_{p} \xrightarrow{R^{1}} R^{2}$$

$$(R^{12})_{p} \xrightarrow{R^{1}} R^{2}$$

$$R^{1} \xrightarrow{R^{2}} R^{2}$$

$$R^{1} \xrightarrow{R^{1}} R^{2}$$

$$R^{2} \xrightarrow{R^{1}} R^{2}$$

wherein-R¹, R², R⁴-and R⁵-are each independently selected from the groupconsisting of hydrogen, halogen, alkyl, haloalkyl, alkoxy, cyano, nitro, cycloalkyl, carboxaldehyde;

D, B, Y and Z at each occurrence are independently selected from the groupconsisting of CR⁶=, CR⁷R⁸-, -C(O)-, -O-, -SO₂-, -S-, -N=, and -NR⁹-; n is an integer of zero to three;

- wherein R⁶, R⁷, R⁸ and R⁹, at each occurrence, are each independently selected from the group consisting of hydrogen, alkyl, carboxy, hydroxyalkyl, alkylaminocarbonyl alkyl, dialkylaminocarbonylalkyl and carboxyalkyl;
- R¹⁰-and R¹¹-are each independently selected from the group consisting of hydrogen, alkyl, cycloalkyl, alkoxyalkyl, alkoxyarbonylalkyl, carboxyalkyl, hydroxyalkyl, heterocyclyl, heterocyclylalkyl and heterocyclylamino;
- wherein R¹⁰ and R¹¹ may be joined to form a three to seven membered heterocyclyl ring, said ring optionally being substituted with one or more substituents R¹³, wherein R¹² at each occurrence is independently selected from the group consisting of alkyl, alkylene, alkoxy, alkoxyalkyl, eycloalkyl, aryl, heterocyclyl, heterocyclylalkyl, heterocyclylcarbonyl, heterocyclylalkylaminocarbonyl, hydroxy, hydroxyalkyl, hydroxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, aminoalkyl, aminoalkanoyl, aminocarbonyl, arylalkoxycarbonyl, aminoalkyl, carboxamido, alkoxycarbonylalkyl, carboxamidoalkyl, cyano, tetrazolyl, alkanoyl, hydroxyalkanoyl, alkanoyloxy, alkanoylamino, alkanoyloxyalkyl, alkanoylaminoalkyl, sulfonate, alkylsulfonyl, alkylsulfonylaminocarbonyl, arylsulfonylaminocarbonyl, and heterocyclylsulfonylaminocarbonyl:
- R¹², at each occurrence, is independently selected from the group consisting of hydrogen, halogen, alkyl, haloalkyl, alkoxy, carboxyalkoxy, carboxyalkyland,

- p is an integer of <u>one</u>zero to five. [[;]]

 wherein R¹, R², R⁴, R⁵, R¹⁰, R¹¹, R¹² and R¹³ are unsubstituted or substituted with at least one electron donating group or electron withdrawing group.
- 4. (Currently amended) <u>A</u> The compound <u>according to</u> ef claim 3 wherein p is one; R⁴ and R⁵ are hydrogen;
 - R¹² is selected from the group consisting of halogen, alkyl, alkoxy, carboxyalkoxy, carboxyalkyl and heterocyclyl; and
 - R¹⁰ and R¹¹ are <u>taken together with N joined</u> to form a three to seven membered <u>unsubstituted</u> heterocyclyl <u>ring</u>, <u>or a three to seven</u>

 <u>membered substituted heterocyclyl ring</u>, [[;]] <u>substituted with at least</u>

 <u>one substituent R¹³ and wherein</u> said <u>substituted heterocyclyl</u>, <u>or</u>

 <u>unsubstituted heterocyclyl</u> ring <u>is</u> selected from the group consisting of piperidine, piperazine, morpholine, pyrrolidine, and azetidine.
- 5. (Currently amended) <u>A</u> The compound <u>according to</u> of claim 1 of the structure <u>formula IV</u>

$$(R^{12})_p$$
 R^2 $NR^{10}R^{11}$

<u>IV</u>

wherein D and B are each independently selected from the group consisting of -N= and -CR⁶=;

R¹ is selected from hydrogen, halogen and haloalkyl, with the proviso that if R³ does not define a pyridine, then R¹ is a pyridine;

- R¹-and R² are each independently **is** selected from the group consisting of hydrogen, halogen and haloalkyl;
- R¹⁰-and R¹¹-are each independently selected from the group consisting of hydrogen, alkyl, cycloalkyl, alkoxyalkyl, alkoxyarbonylalkyl, carboxyalkyl, hydroxyalkyl, heterocyclyl, heterocyclylalkyl and heterocyclylamino;
- wherein R¹⁰-and R¹¹-may be joined to form a three to seven membered heterocyclyl ring, said ring optionally substituted with one or more substituents R¹³, wherein R¹³-at each occurrence is independently selected from the group consisting of alkyl, alkylene, alkoxy, alkoxyalkyl, eycloalkyl, aryl, heterocyclyl, heterocyclylalkyl, heterocyclylcarbonyl, heterocyclylalkylaminocarbonyl, hydroxy, hydroxyalkyl, hydroxyalkyl, hydroxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, carboxyalkyl, aminoalkyl, aminoal

earboxamidoalkyl, cyano, tetrazolyl, alkanoyl, hydroxyalkanoyl, alkanoyloxy, alkanoylamino, alkanoyloxyalkyl, alkanoylaminoalkyl, sulfonate, alkylsulfonyl, alkylsulfonylaminocarbonyl, arylsulfonylaminocarbonyl and heterocyclylsulfonylaminocarbonyl;

- R¹², at each occurrence, is independently selected from the group consisting of hydrogen, halogen, alkyl, haloalkyl, alkoxy, carboxyalkoxy, carboxyalkyland heterocyclyl; and [[,]]
- p is an integer of <u>one</u>zero to five. [[;]]

 wherein R¹, R², R¹⁰, R¹¹, R¹² and R¹³ are unsubstituted or substituted with at least one electron donating group or electron withdrawing group.
- 6. (Currently amended) A The compound according to of claim 5 wherein p is one;

 R¹² is selected from the group consisting of halogen, alkyl, alkoxy,

 carboxyalkoxy, carboxyalkyl and heterocyclyl; and
 - R¹⁰ and R¹¹ are <u>taken together with N joined</u> to form a three to seven membered <u>substituted</u> heterocyclyl <u>ring</u>, or a three to seven membered <u>unsubstituted heterocyclyl</u> ring, [[;]] <u>substituted with at least one substituted R¹³, wherein R¹³ is defined as in claim 1, and wherein said <u>substituted heterocyclyl ring</u>, or <u>unsubstituted heterocyclyl ring</u> is selected from the group consisting of piperidine, piperazine, morpholine, pyrrolidine, and azetidine.</u>
- 7. (Currently amended) <u>A</u> The compound <u>according to</u> of claim 1, selected from the-group consisting of 1-(6-(4-(2-isopropyl-phenylsulfanyl)-3-trifluoromethyl-phenyl)
 pyrimidin-4-yl)-piperidine-3-carboxylic acid, 4-(4-(2-isopropyl-phenylsulfanyl)-3-

trifluoromethyl-phenyl)-6-(3-(2*H*-tetrazol-5-yl)-piperidin-1-yl)-pyrimidine, 4-(4-(2-isopropyl-phenylsulfanyl)-3-trifluoromethyl-phenyl)-6-(4-(2*H*-tetrazol-5-yl)-piperidin-1-yl)-pyrimidine, (1-(6-(4-(2-isopropyl-phenylsulfanyl)-3-trifluoromethyl-phenyl)-pyrimidin-4-yl)-piperidin-3-yl)-methanol, 2-(1-(6-(4-(2-isopropyl-phenylsulfanyl)-3-trifluoromethyl-phenyl)-pyrimidin-4-yl)-piperidin-4-yl)-ethanol, *N*-(1-(4-(4-(2-isopropyl-phenylsulfanyl)-3-trifluoromethyl-phenyl)-pyrrolidin-3-yl)-acetamide, 1-(4-(4-(2-methoxy-phenylsulfanyl)-3-trifluoromethyl-phenyl)-pyrrolidine-3-ol, *N*-1-(4-(4-(2-methoxy-phenylsulfanyl)-3-trifluoromethyl-phenyl)-pyrrolidine-3-yl)-acetamide, *N*-1-(4-(4-(2-methoxy-phenylsulfanyl)-3-trifluoromethyl-phenyl)-pyrrolidine-3-yl)-acetamide, *N*-1-(4-(4-(2,3-dihydro-benzo(1,4)dioxin-6-ylsulfanyl)-3-trifluoromethyl-phenyl)-3,4,5,6-tetrahydro-2*H*-(1,2')bipyridinyl-4-carboxylic acid, and 4'-(4-(2,3-dihydro-benzo(1,4)dioxin-6-ylsulfanyl)-3-trifluoromethyl-phenyl)-3,4,5,6-tetrahydro-2*H*-(1,2')bipyridinyl-3-carboxylic acid.

8. (Currently amended) A composition comprising:

a compound <u>according to</u> of claim 1

and in a pharmaceutically acceptable carrier.

- 9. (Currently amended) A method of inhibiting inflammation or suppressing immune response in a mammal comprising administering to said mammal a therapeutic amount of a compound <u>according to</u> of claim 1.
- 10. (New) A compound according to claim 1 wherein A is
- (i) an unsubstituted or substituted aryl group, substituted by at least one substituent R^{12} , wherein R^{12} is defined as in claim 1, or

(ii) an unsubstituted or substituted heterocyclyl group of the formula

wherein

R¹² is defined as in claim 1:

p is an integer of one to three;

 X^* and Z^* are each independently selected from -CH₂-, -CH₂NH-, -CH₂O-, -NH-, and -O-, with the proviso that at least one of X^* and Z^* is not -CH₂-; and

Y* is $-(C(R")_2)_v$ -, wherein

R" is hydrogen or alkyl; and

v is 1, 2, or 3.

- 11. (New) A compound according to claim 1 or 10 wherein A is an unsubstituted or substituted aryl group, wherein the aryl group is
- (I) a mono- or a bicyclic carbocyclic ring system having one or two aromatic rings, or
- (ii) a mono- or a bicyclic carbocyclic ring system having one or two aromatic rings,

wherein one or more than one of the aromatic rings is fused to a ring selected from cyclohexane, cyclohexene, cyclopentane, and cyclopentene.

12. (New) A compound according to claim 1 wherein A is an unsubstituted or substituted aryl group of the formula

wherein R¹² is defined as in claim 1; and p is an integer of one to five.

13. (New) A compound according to claim 1 wherein

D is $CR^6 = or -N =$,

B is -S-, -O-, -CR⁶= or -N=,

Y is $-CR^6 = or -N =$,

Z is -CR⁶= or -N=; and

n is zero or one.

14. (New) A compound according to claim 1 wherein R³ is selected from

15. (New) A compound according to claim 1 wherein R¹ or R³ is a group of formula II wherein

D is -CR⁶=;

B is -O- or -S-;

Y is -N=; and

n is zero.

16. (New) A compound according to claim 1 wherein

D is $-CR^6$ or -N=;

B is -N=;

Y is CR⁶=; and

n is one.

17. (New) A compound according to claim 1 wherein

R¹ is selected from hydrogen, halogen, alkyl, nitro,

R² is selected from hydrogen, halogen, alkyl, and nitro;

 R^4 and R^5 are each independently selected from hydrogen and alkyl; and R^3 is

wherein

D is $-CR^6 = or -N =$,

B is -S-, -O-, -CR⁶= or -N=,

Y is $-CR^6 = or -N =$,

Z is -CR⁶= or -N=; and

n is zero or one.

18. (New) A compound according to claim 1 wherein

R¹ and R² are each independently selected from hydrogen, halogen, and haloalkyl;

R³ is a pyridine; and

R⁴ and R⁵ are each hydrogen.

19. (New) A compound according to claim 1 wherein

R¹ is selected from hydrogen, halogen, haloalkyl,

and
$$(Z)_n^{NR^{10}R^{11}}$$

R² is selected from hydrogen, halogen, and haloalkyl;

R⁴ and R⁵ are each hydrogen; and

R³ is

wherein

D is $-CR^6 = or -N =$,

B is -S-, -O-, -CR⁶= or -N=,

Y is $-CR^6 = or -N =$,

Z is -CR⁶= or -N=; and

n is zero or one.

20. (New) A compound according to claim 1 wherein

R¹ is selected from hydrogen, halogen, haloalkyl,

and
$$(Z)_n^{NR^{10}R^{11}}$$

R² is selected from hydrogen, chloro, and trifluoromethyl;

R⁴ and R⁵ are each hydrogen; and

R³ is selected from

- 21. (New) A compound according to claim 1 wherein R⁶ is hydrogen.
- 22. (New) A compound according to claim 1 wherein

R¹ is selected from hydrogen, halogen, and haloalkyl,

R² is selected from hydrogen and halogen,

R³ is a pyridine, and

R⁴ and R⁵ are each hydrogen.

23. (New) A compound according to claim 22 wherein

R¹ is trifluoromethyl,

R² is hydrogen, and

R³ is a pyridine.

- 24. (New) A compound according to claim 22 wherein R¹ and R² are each chloro, and R³ is a pyridine.
- 25. (New) A compound according to claim 1 which has an IC $_{50}$ of less than 20 μM when tested in one or both of
 - (i) an ICAM-1/LFA-1 Biochemical Interaction Assay, or
 - (ii) an ICAM-1/JY-8 Cell Adhesion Assay
- 26. (New) A method for ameliorating a pathology in a mammal arising from the interaction of LFA-1 with ICAM-1 or ICAM-3 comprising administering to said mammal a therapeutic amount of a compound according to claim 1.

27. (New) A method according to claim 26 wherein the pathology is selected from an inflammatory disease, an autoimmune disease, tumor metastasis, allograft rejection and reperfusion injury.